



Bronwen Fisher
Sustainability and Climate Change
Surrey County Council

Sustainable Energy in Surrey

- Aiming to become amongst lowest carbon emissions areas
- 40% reduction by 2020
- Surrey Climate Change Partnership
- Energy hierarchy:
 - Reduce demand by eliminating waste use
 - More efficient fittings and appliances
 - Renewables – solar, biomass, heat pumps

Energy saving business case

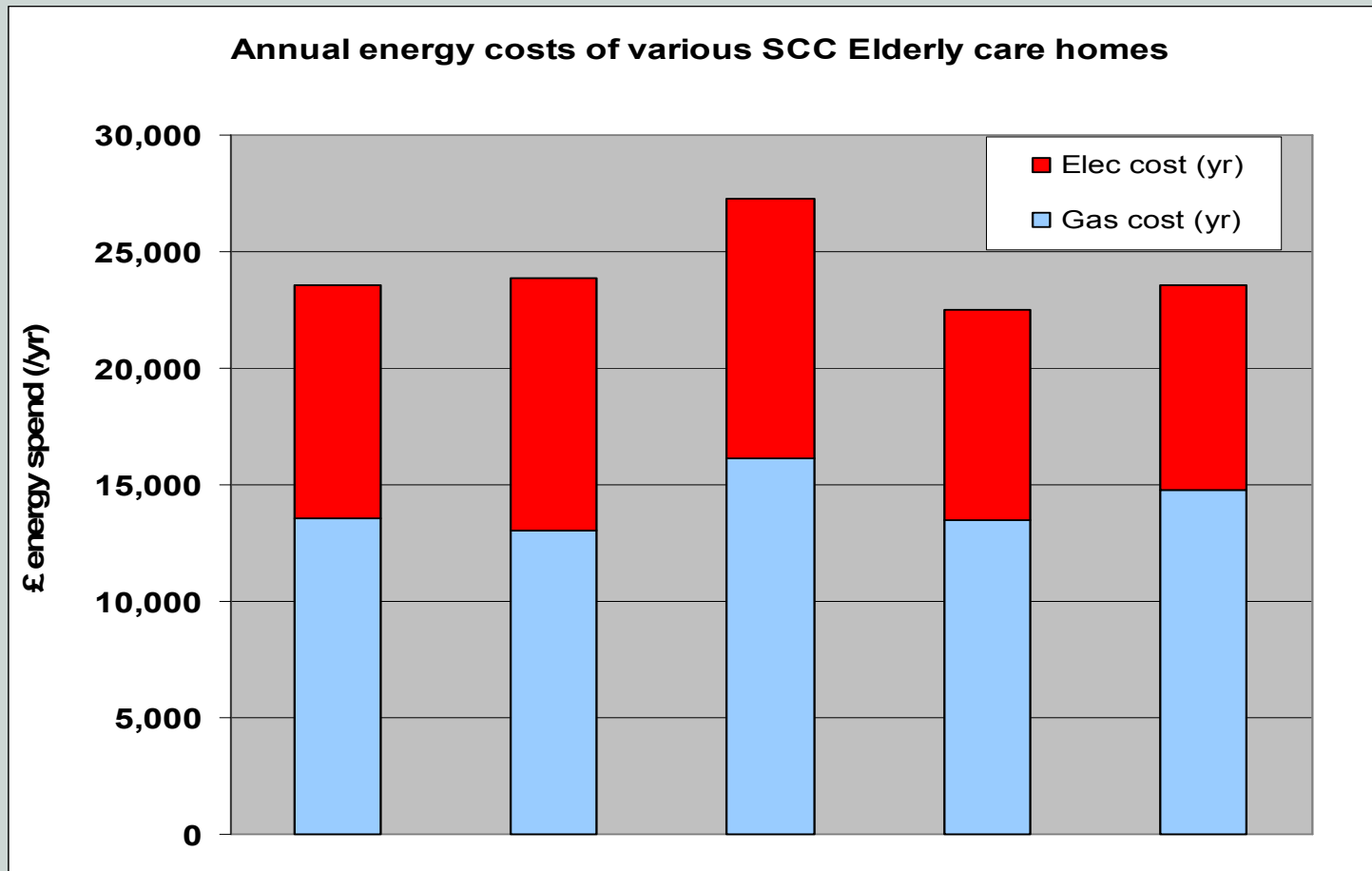


- Energy consumption savings
- CRC (orgs using >6,000MWh elec ~ £500k energy bill/yr)



- Tax relief with enhanced capital allowances
- Renewable energy tariffs e.g. FiT and RHI

Energy costs in care homes



Average

Elec 41%

Gas 59%

**Plus
CRC costs**

**@ £12/tonne
CO2 (if
covered)**

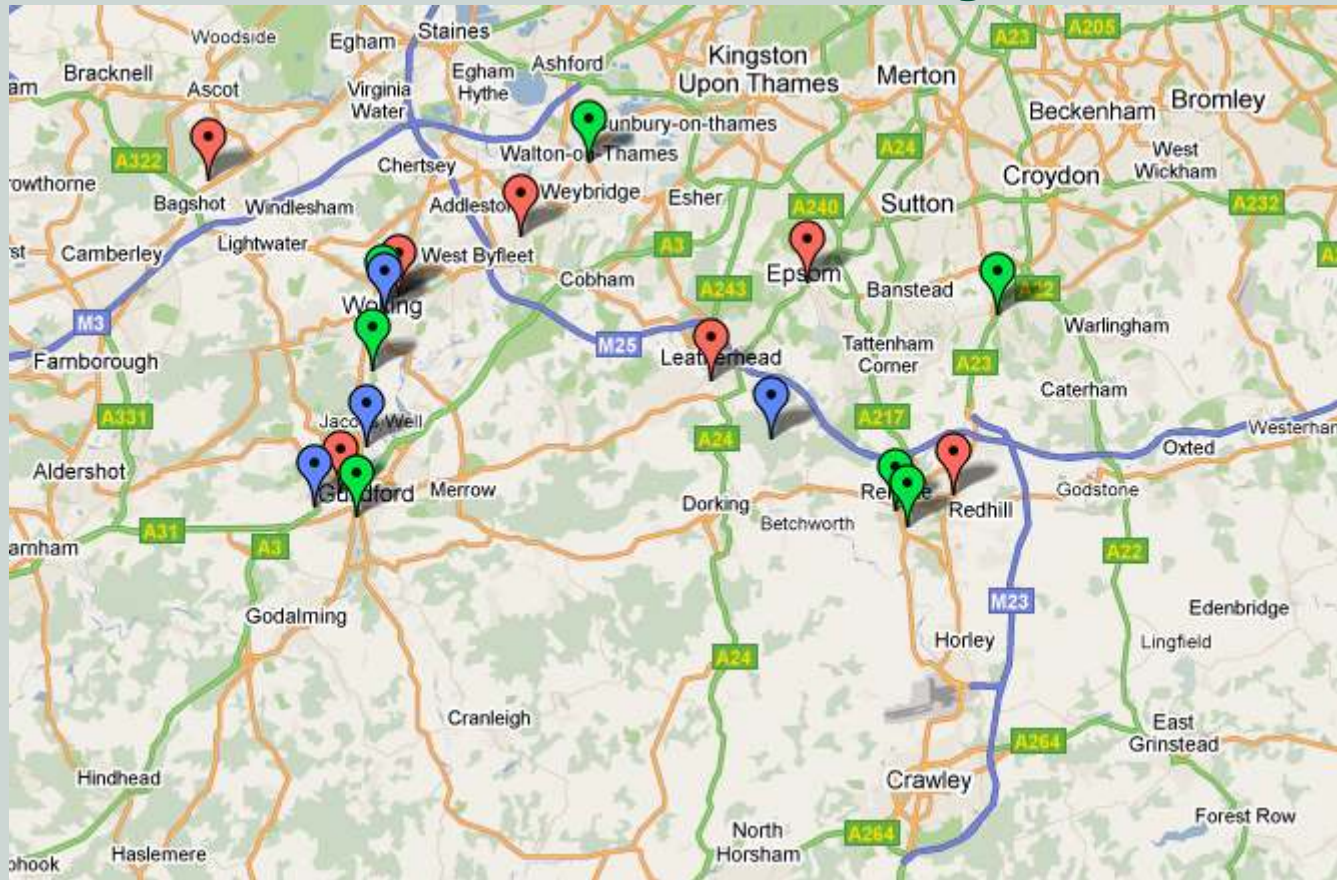
Opportunities for care homes

- Heating efficiency - insulation, boiler sequencing and upgrades, better timer controls
- Lighting efficiency – motion sensors, super efficient bulbs inc LED
- Efficient appliances
- Combined heat and power
- Biomass heating

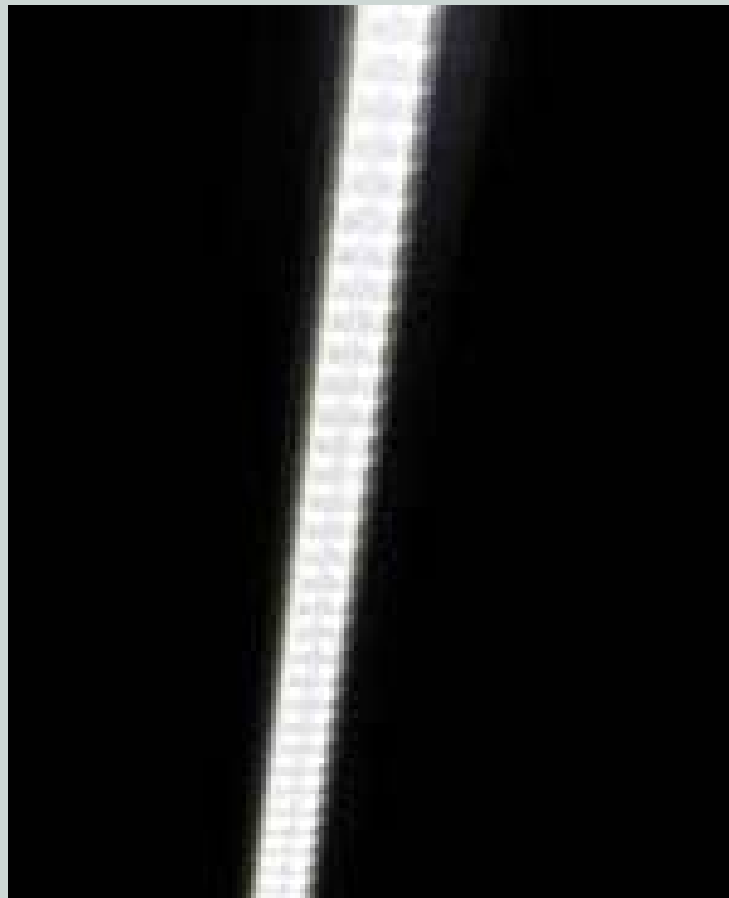
Open Energy Surrey Conference: 17th May 09:30 – 13:30 Yvonne Arnaud Theatre Guildford

- Energy savings and finance opportunities
- Income from FiT and RHI
- Capital investment
- Case studies

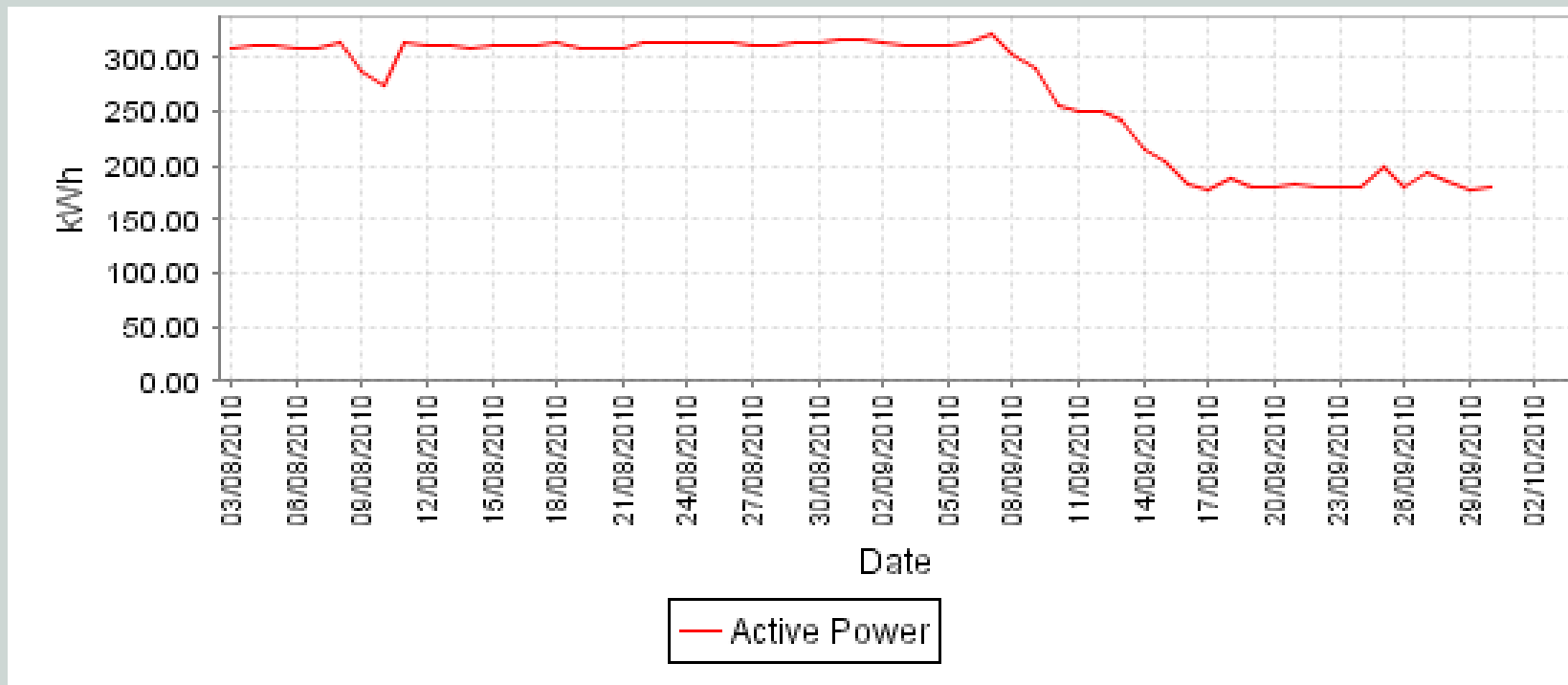
Open Energy Surrey Sites tours: 18th - 19th May



LED lighting = 60% energy saving



LED lighting impact Clarendon Rd car park, Redhill



Oak Tree House, Woking

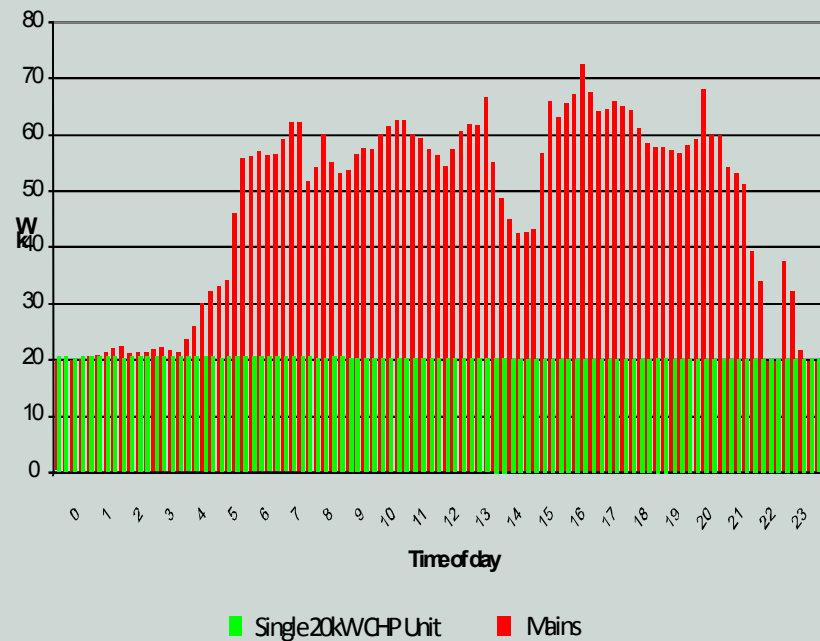


- High insulation levels inc internal wall insulation
- Efficient appliances and LED lighting
- Solar PV and solar thermal heating

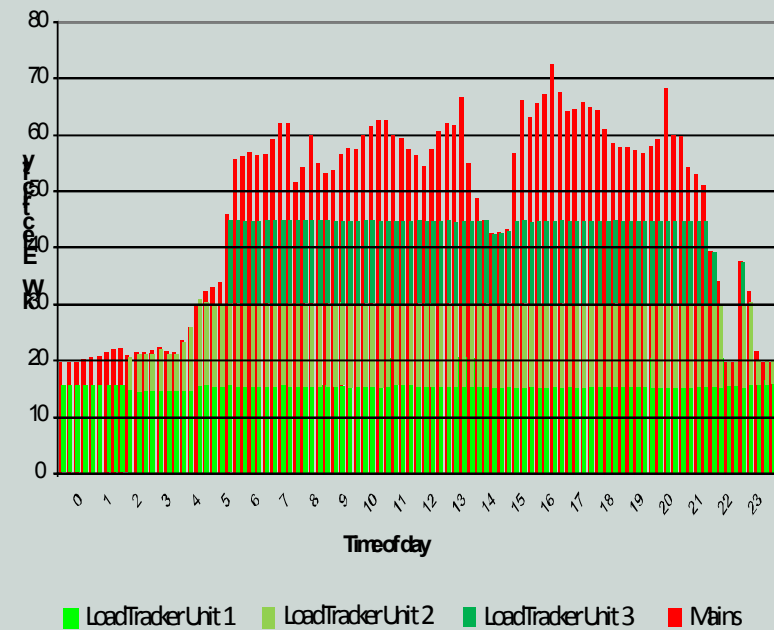
Mayford Grange – Gas CHP and solar PV



Non-modulating CHP vs Load tracker



CHP serves Base load only



CHP serves ~80% of energy demand

Biomass boilers

- Birtley Care Home
- Ashley School
- Guildford BC office
- Audi car showroom
- High Ashurst Outdoor Cent



Ground source heat pump Pavilion café, Priory Park, Reigate





Book conference and / or site tour:

www.surreycc.gov.uk/openenergy

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